

Abstract

A lens assembly and method for manufacture. The lens assembly includes at least one lens element, with multiple sawn planar faces formed parallel to an optical axis and spaced equidistantly from the optical axis so the lens element has a polygonal cross section. Each lens element has a centered, rotationally symmetric characteristic so the overall assembly has a corresponding characteristic. The manufacture includes the step of utilizing oversized conventional cylindrical lens elements and other optical elements formed into lens systems. The faces are sawn to reduce the overall size. A circumscribing sheath provides a segmental lumen along each face.